

Patent Docket # 5346-7CIP

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of

Ulrich STIMMING et al.

Serial No.: 10/054,213

Filed: November 13, 2001

For: Fuel Cell with Pulsed Anode Potential

Examiner: J. Crepeau  
Group Art: 1745

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

March 21, 2006

(Date of Deposit)

Alfred W. Froebrich

Name of applicant, assignee or Registered Representative

Signature

March 21, 2006

Date of Signature

Mail Stop Appeal Brief  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

SIR:

This is a Request for a Panel Review of Issues on Appeal in accordance with the Office Gazette Notice dated July 12, 2005. The present request is filed concurrently with a Notice of Appeal and is filed before an Appeal Brief. No amendments are being filed with this request.

Arguments supporting the Request for Review begin on page 2 of the present communication.

## **REMARKS/ARGUMENTS**

This Notice of Appeal and Request is filed in response to the final Office Action dated September 23, 2005.

The matters to be reviewed are whether independent claims 1 and 2 are anticipated by U.S. Patent No. 6,096,448 (Wilkinson).

Independent claim 1 is directed to a fuel cell and recites “an anode-electrolyte-cathode unit having an anode catalyst” and “means for impressing a positive voltage pulse on the anode”. Independent claim 2 is directed to a method for removing carbon monoxide from an anode catalyst of a fuel cell and includes “impressing at least one positive voltage pulse on the anode.”

It is respectfully submitted that Wilkinson does not disclose “impressing a positive voltage pulse on an anode”, as recited in each of independent claims 1 and 2, because in Wilkinson the anode potential is raised by causing a fuel starvation condition at the anode instead of by impressing a positive voltage pulse on the anode.

Wilkinson discloses a method and apparatus for operating an electrochemical fuel cell with periodic fuel starvation. Fuel starvation is defined in Wilkinson as a reduction in fuel supply to the anode electrocatalyst which results in an increase in the anode potential. Wilkinson discloses three embodiments for achieving fuel starvation. In a first embodiment, the delivery of fuel to the anode of the fuel cell is periodically interrupted using a valve or a pump (see col. 5, lines 13-21, in Wilkinson). In a second embodiment, a flow of fuel-free fluid is periodically brought to the anode (see col. 5, lines 40-50). In the third embodiment, a switch periodically connects a transient electrical load to the fuel cell which draws electrical power greater than that which can be produced by the fuel supply so that the fuel cell becomes fuel starved (see col. 4, lines 23-35; and col. 5, lines 51-60). However, neither of the above embodiments for causing a


fuel starvation condition disclose the recitation of "impressing a positive voltage pulse to the anode", as expressly recited in each of independent claims 1 and 2. Although the fuel starvation at the anode achieves the same results as the claimed invention, i.e., an increase in the anode potential, Wilkinson achieves the result using an entirely different solution. Accordingly, independent claims 1 and 2 are not anticipated by Wilkinson.

Furthermore, there is no teaching or suggestion in Wilkinson for impressing a positive voltage pulse on the anode. Instead, Wilkinson teaches only that fuel starvation of the anode achieves the desired results. Accordingly, independent claims 1 and 2 are also allowable over Wilkinson.

In view of the above remarks, the application is now deemed to be in condition for allowance and notice to that effect is earnestly solicited.

Respectfully submitted,

COHEN, PONTANI, LIEBERMAN & PAVANE

By   
Alfred W. Froebrich  
Reg. No. 38,887  
551 Fifth Avenue, Suite 1210  
New York, New York 10176  
(212) 687-2770

Dated: March 21, 2006